DOCUMENT RESUME

ED 298 681 EC 210 614

TITLE Research on the Effectiveness of Mainstreaming. Abstract XIV: Research & Resources on Special Education.

INSTITUTION ERIC Clearinghouse on Handicapped and Gifted Children, Reston, Va.

SPONS AGENCY Office of Special Education and Rehabilitative Services (ED), Washington, DC. Div. of Innovation and Development.

PUB DATE Nov 87

CONTRACT 400-84-0010

NOTE 7p.

AVAILABLE FROM ERIC/OSEP Special Project on Interagency Information Dissemination, Council for Exceptional Children, 1920 Association Dr., Reston, VA 22091 (free).

PUB TYPE Book/Product Reviews (072)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS Academic Achievement; Attitudes; *Disabilities; Educational Environment; *Educational Research; *Instructional Effectiveness; *Mainstreaming; Needs Assessment; *Outcomes of Education; Social Integration; Special Education Teachers; Student Placement; Teacher Education; Teacher Role

IDENTIFIERS Attitudes Toward Disabled

ABSTRACT

This one-page abstract, was derived from document abstracts listed in "Research on the Effectiveness of Mainstreaming," an ERIC Computer Search Reprint containing bibliographic information and abstracts on more than 120 studies. In the studies reviewed, the role of regular and special education teachers is identified as critical to the success of mainstreamed students. Also identified are the organizational resources, cooperation, and coordination required to support the teachers in their efforts. In this summary, the studies are discussed in six categories: (1) criteria for integrating students into regular classes; (2) the social integration of mainstreamed students; (3) the perceptions and attitudes of parents, mainstreamed students and their peers, and educators; (4) assessments of preservice and inservice teacher training and training needs; (5) organization of the environment; and (6) the effects of mainstreaming on achievement. A list of 41 footnotes concludes the paper. (JDD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED298681

ERIC CLEARINGHOUSE ON HANDICAPPED AND GIFTED CHILDREN

ERIC/SEP SPECIAL PROJECT ON INTERAGENCY INFORMATION DISSEMINATION

RESEARCH & RESOURCES ON SPECIAL EDUCATION

ABSTRACT XIV
NOVEMBER 1987

RESEARCH ON THE EFFECTIVENESS OF MAINSTREAMING

For nearly a decade, federal education laws have called for the education of handicapped students in the least restrictive educational environment. Mainstreaming, the practice of educating handicapped students in regular education classrooms, has been widely used to fulfill this requirement. In their efforts to apply this practice effectively, educators are still in the process of identifying the academic and social benefits of mainstreaming and defining and developing the individual and organizational capabilities that maximize its success for handicapped students. There are two major areas of investigation that apply to the implementation of mainstreaming at this point: (1) learning how to select and prepare students for mainstreaming and provide the support needed to facilitate their successful transition to integrated environments; and (2) identifying areas of need and developing the knowledge, materials, capabilities, and organizational structures required to effectively educate mainstreamed students who have already been integrated into regular classes.

Research on the Effectiveness of Mainstreaming is an ERIC Computer Search Reprint containing bibliographic information and abstracts on more than 120 studies. Throughout these documents, the research repeatedly identifies the role of regular and special education teachers as critical to the success of mainstreamed students. It also attempts to identify the organizational resources, cooperation, and coordination required to support the teachers in their efforts. These documents are summarized here in six categories: (1) criteria for integrating students into regular classes; (2) the social integration of mainstreamed students; (3) the perceptions and attitudes of parents, mainstreamed students and their peers, and educators; (4) assessments of pre- and in-service teacher training and training needs; (5) organization of the environment; and (6) the effects of mainsteaming on achievement.

INTEGRATION CRITERIA

This category includes studies that establish guidelines to determine when individual students are ready for mainstreaming and techniques to prepare them for entry into regular classes. In addition to academic readiness, many studies highlight social competence and a low tendency to be disruptive as important prerequisites to mainstreaming.[1] There is some indication that the transition to regular classes may be more successful when children are mainstreamed early: A survey of teachers of newly mainstreamed students showed that while the teachers were in general satisfied with pupils' academic and behavioral progress, their satisfaction declined after grade 6.[2]

Studies describing inventories of mainstreaming readiness and training to help prepare students for mainstreaming are also included in this collection of documents. For example, one study compared the rate of disruptive behavior of students being considered for mainstreaming to the range and mean of disruptive behavior in the class being considered for placement.[3] In another study, a checklist developed for the Albuquerque Integrational Model was found to be a reliable and valid indication of behaviors and skills considered by professionals to be important to the success of mainstreamed preschoolers, but often neglected by other instruments.[4] In another study, a training project examined strategies through which educators can map the social behaviors of students considered for mainstreaming and present them in videotaped training and analysis sessions. This study concluded that the information gained by the students from this procedure is generally not otherwise available to them.[5]

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

SOCIAL INTEGRATION

This category includes studies of teachers' effects on the social integration of handicapped students, the students' social and communication skills, and sociometric studies of mutual liking and acceptance between members of the mainstreamed class.

EC210614

The Council for Exceptional Children operates the ERIC Clearinghouse on Handicapped and Gifted Children under a contract with the Office of Educational Research and Improvement, U.S. Department of Education.

Several studies found that the social integration of students with handicaps depends on the attitudes and efforts of teachers.[6] Teachers or other adults must create opportunities for disabled children to interact with their nondisabled peers in order to achieve lasting social integration.[7] Studies of preschool children with mental handicaps found that unless interaction was fostered, they were more often alone than nonhandicapped children, played less often with other children, and were not integrated into the group's verbal life.[8] However, there are questions about how long the teacher should continue to intervene: One study of elementary students with mental handicaps reported that teacher interventions initially had positive effects, but these effects lessened or reversed as the teacher continued to intervene. These results suggest that teacher intervention is needed to initiate positive interactions between handicapped and nonhandicapped students, but this intervention should be gradually withdrawn once positive interactions are established.[9]

The environment created by regular class peers has been identified as crucial to mainstreaming success, along with the social and communication skills of children with handicaps.[10] One study concluded that it is important for teachers to provide social skills training to mainstreamed hearing impaired students, as well as creating opportunities for interaction.[11] The studies in this collection indicate that mainstreaming presents increased opportunities for both handicapped and nonhandicapped students to develop their communication skills, especially as the students grow older.[12]

The sociometric studies described in this collection had variable results: While some studies found that elementary handicapped students were perceived as less cooperative, more shy, and less likely to be leaders,[13] studies at the high school level found no difference in sociometric ratings between (a) learning disabled students[14] or (b) physically handicapped students and their nonhandicaped peers.[15]

PERCEPTIONS AND ATTITUDES

Studies in this category describe the attitudes and perceptions of mainstreamed students and their peers, parents, teachers, and school administrators. In addition to providing information about attitudes that can affect the success of mainstreaming efforts, these studies provide information on mainstreaming from the people most intimately involved in it.

One study that investigated attitudes of persons involved in 25 mainstreaming programs suggested many failures of mainstreaming efforts were due to organizational problems, destructive politics, and lack of skill or willingness of school personnel.[16] A St. Paul, Minnesota, survey of parents of special education students, special and regular education students, administrators and support staff found that special education teachers were seen as the most knowledgeable, supportive, and interested in mainstreaming, although implementation responsibility falls on regular teachers. Class size and teacher workload were of great concern to all groups surveyed. The study also found that regular education teachers were more concerned with the effects of mainstreaming on regular education students and considered the teacher's attitude less important to the special education student's success, while special education teachers generally viewed the teacher's attitude as critical to the special education student's success.[17] These studies indicate that cooperation and knowledge sharing among school staff are essential to mainstreaming success.

Pre- and inservice training in mainstreaming has been shown by some studies to promote positive attitudes among teachers.[18] However, several surveys found that even though teachers may view mainstreaming positively, many feel inadequately prepared for it.[19]

TEACHER TRAINING

This category includes assessments of pre- and inservice teacher preparation for mainstreaming and studies that target training needs. For experienced teachers as well as preservice teachers, the identification of the required competencies is an important basis for development of the knowledge needed, as well as for appropriate assessment of teacher performance.

This collection includes a report of a survey of 14 teacher education programs and 184 effective mainstream teachers conducted by the American Association of Colleges for Teacher Education. The survey identified the skills and abilities important to mainstream teaching.[20] Several other studies in this category found that experienced teachers were not adequately prepared for mainstreaming,[21] and also that some education students were not receiving adequate preparation in managing mainstreamed classrooms.[22] A study of learning disabled students found that although teachers recognize the students' low achievement, they do very little that is instructionally different when these students are assigned to regular classes.[23] Two methods of providing inservice training, peer tutoring[24] and single concept flyers, are described in this group of documents.[25]

ORGANIZATIONAL CONCERNS

This category includes studies of school district organization, classroom management, and instructional arrangements that affect the success of mainstreaming and provide support to teachers. For example, the category includes a study of the ways in which the policies of 43 states affect the degree of integration of their handicapped students. Integrative states were characterized by fewer categories of handicap, more college training programs for teachers of severely disabled students, and teacher certification standards that require regular educators to have special education courses and special educators to have regular education certificates.[26]

Other studies in this group examined problems in estimating the costs of special education,[27] compared the effectiveness of integrated versus segregated settings for preschoolers and adolescents,[28] and studied the effectiveness of rural resource teachers.[29]

At the classroom level, a number of programs for managing or integrating mainstreamed classes are described, including the Utah State Classroom Management Program;[30] Room Management Procedures;[31] the application of Action Zone Theory for hearing impaired students;[32] Team Assisted Individualization,[33] which combines cooperative learning with individualized instruction; and a class management program to change disruptive behavior and improve the performance of handicapped and nonhandicapped students.[34]

EFFECTS OF MAINSTREAMING ON ACHIEVEMENT

This category includes studies to determine the effects of mainstreaming on academic achievement, variables that affect the achievement on mainstreamed students, and methods of measuring achievement of mainstreamed students.

The results of studies in this collection vary with respect to the effects of mainstreaming on achievement. One study of 15 intellectually handicapped children found that although they had adjusted well to the mainstreamed class setting and were well accepted by their peers, their academic progress was variable.[35] A study of integrated and nonintegrated preschool programs found that across a broad assessment battery, children in integrated programs did significantly better only on a measure of social play.[36] One study that examined the performance patterns of over 13,000 special education students found that their performance patterns, although at a slightly lower level, mirrored those of mainstreamed students.[37] Yet another study concluded that even if the enriched intellectual composition of the mainstreamed class exacts a "psychological price" in terms of lower academic self-image and reduced motivation, the achievement of the special education students was not reduced, but increased.[38]

Several studies in this collection developed models of the relationship between mainstreaming and academic achievement. For example, one study of the mathematics achievement of mainstreamed hearing impaired adolescents developed a model that included such variables as higher expectations, greater quantities of demanding materials, availability of individual support, and training in academic content for regular mathematics teachers.[39] A study of methods used by elementary teachers known to have fostered success in the achievement and social adjustment of mainstreamed students identified 74 variables, including questioning style, classroom climate, individualization, class management, and academic learning time.[40] Another study found that a goal-oriented approach to learning (enlisting the student's help in developing an appropriate classroom program) was superior to traditional procedures in terms of student attainment of instructional goals and teacher utilization of a greater range of instructional strategies.[41]

Research on the Effectiveness of Mainstreaming is one of a number of ERIC Computer Search Reprints, extensive bibliographies on specific topics in special education produced by the ERIC Clearinghouse on Handicapped and Gifted Children. Each reprint includes 60 to 100 documents and provides an abstract summarizing each document. The documents are selected from searches of the ERIC (Educational Resources Information Center) and ECER (Exceptional Child Education Resources) data bases, which include over 500,000 journal articles and other documents concerning education.

This summary was derived from the document abstracts listed in *Research on the Effectiveness of Mainstreaming* and should not be considered exhaustive of the literature on mainstreaming effectiveness. *Research on the Effectiveness of Mainstreaming* is available for $11.75 ($10.00 to CEC members) from The Council for Exceptional Children, 1920 Association Drive, Dept. CS87 M, Reston, VA 22091–1589 (703/620-3660). Order Computer Search Reprint No. 521.

In the footnotes below and in the ERIC Search Reprint, ED numbers refer to ERIC documents, which are generally available from the ERIC system. EJ numbers refer to ERIC-indexed journal articles; the journal articles themselves can be obtained from the publisher or through a library. EC numbers refer to documents abstracted and indexed in the ECER data base; these documents can be obtained from the publisher (if the document is commercially published material) or University Microfilms International (if the document is a doctoral dissertation).

FOOTNOTES

1. For example, see Spencer J. Salend and Susan M. Salend, "Competencies for Mainstreaming Secondary Level Learning Disabled Students," *Journal of Learning Disabilities,* (Feb., 1986), v. 19, n. 2, pp. 91–94. (ECER No. EC 181 865); and Carol Sacker Weissman et al., *The Impact of Early Intervention, P.L. 94–142 and Other Factors on Mainstreaming,* (1984). (ERIC No. ED 254 033, ECER No. EC 171 742.)

2. Barry H. Schneider and Barbara M. Byrne, "Predictors of Successful Transition from Self-Contained Special Education to Regular Class Settings," *Psychology in the Schools,* (July, 1984), v. 21, n. 3, pp. 375–380. (ERIC No. EJ 306 357.)

3. Jane E. Prochnow-LaGrow et al., "The Use of Normative Sampling as an Aid in Determining Appropriate Educational Placements," *Mental Retardation and Learning Disability Bulletin* (1985), v. 13, n. 1, pp. 49–57. (ECER No. EC 181 668.)

4. Albuquerque Special Preschool, *Criteria for Integrating/Mainstreaming Handicapped Children (Criteria Checklist). Report of Research and Guide to Completing the Checklist,* (1984). (ERIC No. ED 271 920; ECER No. EC 190 228.)

5. Harold Johnson and Penny Griffith, "The Behavioral Structure of an Eighth Grade Science Class: A Mainstreaming Preparation Strategy," *Volta Review,* (Oct.-Nov., 1985), v. 87, n. 6, pp. 291–303. (ECER No. EC 181 545.)

6. For example, see Mary Frances Hanline, "Integrating Disabled Children," *Young Children,* (Jan., 1985), v. 40, n. 2, pp. 45–48. (ERIC No. EJ 314 236); Judith A. Jellison et al., "Structuring Small Groups and Music Reinforcement to Facilitate Positive Interactions and Acceptance of Severely Handicapped Students in the Regular Music Classroom," *Journal of Research in Music Education,* (Winter, 1984), v. 32, n. 4, pp. 243–264. (ERIC No. EJ 320 401); and Stuart Yager, "The Effects of Cooperative and Individualistic Learning Experience on Positive and Negative Cross Handicap Relationships," *Contemporary Educational Psychology,* (April, 1985), v. 10, n. 2, pp. 127–138. (ERIC No. EJ 316 141.)

7. Nicholas B. Fitzgerald, *Competencies and Contexts of Friendship Development in a Reverse Mainstreamed Preschool,* (1985). (ERIC No. ED 262 876.)

8. Bodil Elkholm and Anna Hedin, *Mainstreamed Children and "Ordinary" Children in Twelve Day-Care Centers: An Observational Study,* (1984). (ERIC No. ED 266 852); Nancy Herink and Patrick C. Lee, "Patterns of Social Interaction of Mainstreamed Preschool Children: Hopeful News from the Fields," *Exceptional Child,* (Nov., 1985), v. 32, n. 3, pp. 191–199. (ECER No. EC 182 868.)

9. David A. Cole et al., "Interactions Between Peers with and without Severe Handicaps: Dynamics of Teacher Intervention," *American Journal of Mental Deficiency,* (Sept., 1986), v. 91, n. 2, pp. 160–169. (ECER No. EC 190 817.)

10. Richard P. Brinker and Margaret E. Thorpe, "Features of Integrated Educational Ecologies that Predict Social Behavior Among Severely Mentally Retarded and Nonretarded Students," *American Journal of Mental Deficiency,* (Sept., 1986), v. 91, n. 2, pp. 150–159. (ECER No. EC 190 816.)

11. Antia Shirin, "Social Integration of Hearing Impaired Children: Fact or Fiction?" *Volta Review,* (Oct.-Nov., 1985), v. 87, n. 6, pp. 279–289. (ECER No. EC 181 544.)

12. For example, see Theresa L. Thompson, "Communication with the Handicapped: A Three Year Study of the Effectiveness of Mainstreaming," *Communication Education,* (April, 1983), v. 32, n. 2, pp. 185–195. (ERIC No. EJ 277 817); and "The Development of Listener-Adapted Communication in Physically Handicapped Children: A Cross Sectional Study," *Western Journal of Speech Communication,* (Winter, 1982), v. 46, n. 1, pp. 32–44. (ERIC No. EJ 257 621).

13. Angela R. Taylor et al., *Loneliness, Goal Orientation, and Sociometric Status: Mildly Retarded Children's Adaptation to the Mainstream Classroom,* (1986). (ERIC No. ED 271 909.)

14. Edward J. Sabornie and James M. Kauffman, "Social Acceptance of Learning Disabled Adolescents," *Learning Disability Quarterly,* (Winter, 1986), v. 9, n. 1, pp. 55–60. (ECER No. EC 190 192.)

15. Roberto Flores de Apodaca et al., "A Sociometric Comparison of Mainstreamed, Orthopedically Handicapped High School Students and Nonhandicapped Classmates," *Psychology in the Schools,* (Jan., 1985), v. 22, n. 1, pp. 95–101. (ERIC No. EJ 314 869.)

16. Robert Bogdan, "'Does Mainstreaming Work?' Is a Silly Question," *Phi Delta Kappan,* (Feb., 1983), v. 64, n. 6, pp. 427–428. (ERIC No. EJ 276 328.)

17. Saint Paul Public Schools, Minnesota, *Special Education Council Mainstreaming Study,* (1984). (ERIC No. ED 268 753.)

18. Yona Leyser and Peter D. Abrams, "Changing Attitudes of Classroom Teachers toward Mainstreaming through In-Service Training," *Clearing House,* (Feb., 1984), v. 57, n. 6, pp. 250–255. (ERIC No. EJ 294 771); and "A Shift to the Positive: An Effective Programme for Changing Pre-Service Teachers' Attitudes toward the Disabled," *Educational Review,* (Feb., 1983), v. 35, n. 1, pp. 35–43. (ERIC No. EJ 273 926.)

19. Ronald K. Atwood and Ben R. Oldham, "Teachers' Perceptions of Mainstreaming in an Inquiry Oriented Elementary Science Program" *Science Education,* (Oct., 1985), v. 69, n. 5, pp. 619–624. (ERIC No. EJ 325 743); Rip Marston and David Leslie, "Teacher Perceptions from Mainstreamed versus Non-Mainstreamed Teaching Environments," *Physical Educator,* (March, 1983), v. 40, n. 1, pp. 8–15. (ERIC No. EJ 278 837.)

20. A. Edward Blackhurst, "Competencies for Teaching Mainstreamed Students," *Theory into Practice,* (Spring, 1982), v. 21, n. 2, pp. 139–143. (ERIC No. EJ 265 223.)

21. Ramon M. Rocha and Esther Smith, "Business Education Teachers Assess Mainstreaming Experiences," *Balance Sheet,* (Jan.-Feb., 1985), v. 66, n. 3, pp. 33–34. (ERIC No. EJ 309 492); Dorothea Baker French and Brenda Marie McDonnell, "A Survey of Questions Posed by Regular Classroom Teachers Integrating Hearing Impaired Students in Nova Scotia and New Brunswick," *ACEHI Journal,* (Spring, 1985), v. 11, n. 1, pp. 12–23. (ECER No. EC 181 289.)

22. Liora Pedhazur Schmelkin and Lisa Lynn Lieberman, "Education Students' Awareness of Mainstreaming Concerns: Implications for Improving Training Programs," *Education,* (Spring, 1984), v. 104, n. 3, pp. 258–263. (ERIC No. EJ 301 791); Charles K. Curtis, "Are Education Students Being Prepared for Mainstreaming?" *Education Canada,* (Summer, 1985), v. 25, n. 2, pp. 28–31. (ERIC No. EJ 324 287); Yona Leyser, "Competencies Needed for Teaching Individuals with Special Needs, *Clearing House,* (Dec., 1985), v. 59, n. 4, pp. 179–181. (ERIC No. EJ 327 845.)

23. Zigmond, Naomi, "Managing the Mainstream: An Analysis of Teacher Attitudes and Student Performances in Mainstreaming High School Programs," *Journal of Learning Disabilities,* (Nov., 1985), v. 18, n. 9, pp. 535–541. (ECER No. EC 180 879.)

24. Susan B. Asselin, "Peer Tutoring In-Service Program: Effects on Home Economics Teachers' Knowledge and Atitudes," *Home Economics Research Journal,* (June, 1983), v. 11, n. 4, pp. 352–358. (ERIC No. EJ 280 626.)

25. James E. Whorton et al., "Single Concept Fliers: An Alternative to In-Service Training," *Reading Improvement,* (Winter, 1983), v. 20, n. 4, pp. 316–318. (ERIC Reference No. EJ 291 250.)

26. Richard P. Brinker and Margaret E. Thorpe, "Some Empirically Derived Hypotheses about the Influence of State Policy on Degree of Integration of Severely Handicapped Students," *Remedial and Special Education,* (May-June, 1985), v. 6, n. 3, pp. 18–26. (ECER No. EC 180 187.)

27. David F. Andersen, "Problems in Estimating the Costs of Special Education in Urban Areas: The New York City Case," *Journal of Educational Finance,* (Spring, 1982), v. 7, n. 4, pp. 403–424. (ERIC No. EJ 269 881.)

28. Nancy Davis Burstein, "The Effects of Classroom Organization on Mainstreamed Preschool Children," *Exceptional Children,* (Feb., 1986), v. 52, n. 5, pp. 425–434. (ECER No. EC 181 826); Elaine Levine and Martin Greer, "Long-Term Effectiveness of the Adolescent Learning Center: A Challenge to the Concept of Least Restrictive Environment," *Adolescence,* (Fall, 1984), v. 19, n. 75, pp. 521–526 (ERIC No. EJ 309 602.)

29. Campbell McBurney and Robert R. O'Reilly, "Availability and Acceptability as Factors in the Delivery of Rural Resource Teacher Service," *Research in Rural Education,* (Winter, 1985), v. 3, n. 2, pp. 89–96. (ERIC No. EJ 340 427.)

30. Walter R. Borg and Frank R. Ascione, "Classroom Management in Elementary Mainstreaming Classrooms," *Journal of Educational Psychology,* (February, 1982), v. 74, n. 1, pp. 85–95. (ERIC No. EJ 260 830.)

31. Gary Thomas, "Room Management in Mainstream Education," *Educational Research,* (November, 1985), v. 27, n. 3, pp. 186–293. (ERIC No. EJ 326 149.)

32. Rosemary E. Saur et al., "Action Zone Theory and the Hearing-Impaired Student in the Mainstream Classroom," *Journal of Classroom Interaction,* (Summer, 1984), v. 19, n. 2, pp. 21–25. (ERIC No. EJ 302 019.)

33. Robert E. Slavin, "Team Assisted Individualization: Cooperative Learning and Individualized Instruction in the Mainstream Classroom," *Remedial and Special Education,* (Nov.-Dec., 1984), v. 5, n. 6, pp. 33–42. (ECER No. EC 171 259.)

34. Walter R. Borg and Frank R. Ascione, "Changing On-Task Off-Task and Disruptive Pupil Behavior in Elementary Mainstream Classrooms," *Journal of Educational Research,* (May-June, 1979), v. 72, n. 5, pp. 243–252. (ERIC No. EJ 208 631.)

35. Alan Hudson and Graham Clunies-Ross, "A Study of the Integration of Children with Intellectual Handicaps into Regular Schools," *Australia and New Zealand Journal of Developmental Disabilities,* (Sept., 1984), v. 10, n. 3, pp. 165–177. (ECER No. EC 172 438.)

36. Joseph R. Jenkins et al., "Integrating Normal and Handicapped Preschoolers: Effects on Child Development and Social Interaction," *Exceptional Children,* (Sept., 1985), v. 52, n. 1, pp. 7–17. (ECER No. EC 180 601.)

37. George Behr, *Mainstream Instructional Performance Patterns of Special Education Students,* (1983). (ERIC No. ED 252 004.)

38. Dar Yehezkel and Nura Resh, *Homogeneity and Heterogeneity in Education: The "Psychological Price" Argument,* (1984). (ERIC No. ED 256 829.)

39. Thomas N. Kluwin and Donald F. Moores, "The Effects of Integration on the Mathematics Achievement of Hearing Impaired Adolescents," *Exceptional Children,* (Oct., 1985), v. 52, n. 2, pp. 153–160. (ECER No. EC 180 792.)

40. Barbara Larrivee, *Effective Teaching for Successful Mainstreaming,* (1985). White Plains, NY: Longman, Inc., 95 Church St. (ECER No. EC 172 908.)

41. Charles A. Maher, "Procedure for Mainstreaming Handicapped Adolescents into Regular Education Classrooms, *Techniques,* (July, 1985), v. 1, n. 5, pp. 380–388. (ECER No. EC 181 011.)

ERIC's Special Project on Interagency Information Dissemination is designed to provide information about research in special education, in particular, research funded by the Division of Innovation and Development, Office of Special Education Programs, U.S. Department of Education. This product was developed by the ERIC Clearinghouse on Handicapped and Gifted Children under contract No. 400-84-0010 with the Office of Special Education Programs, U.S. Department of Education. The content, however, does not necessarily reflect the position of SEP/ED and no official endorsement of these materials should be inferred.

ERIC CLEARINGHOUSE ON HANDICAPPED AND GIFTED CHILDREN
RESEARCH & RESOURCES ON SPECIAL EDUCATION
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 ASSOCIATION DRIVE, RESTON, VA 22091